

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
1 December 2005 (01.12.2005)

PCT

(10) International Publication Number  
WO 2005/114869 A1

(51) International Patent Classification<sup>7</sup>: H04B 7/15

KENNEDY, Joseph, P., Jr. [US/US]; 11127 Elmview Place, Great Falls, VA 22066 (US). CARLSON, John, Peter [US/US]; 12006 Trossack Road, Herndon, VA (US).

(21) International Application Number: PCT/US2005/016453

(74) Agent: COMTOIS, Mark, C.; 1667 K Street, N.W., Suite 700, Washington, DC 20006 (US).

(22) International Filing Date: 11 May 2005 (11.05.2005)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

(26) Publication Language: English

(30) Priority Data:

60/570,082	12 May 2004 (12.05.2004)	US
60/750,081	12 May 2004 (12.05.2004)	US
60/570,067	12 May 2004 (12.05.2004)	US

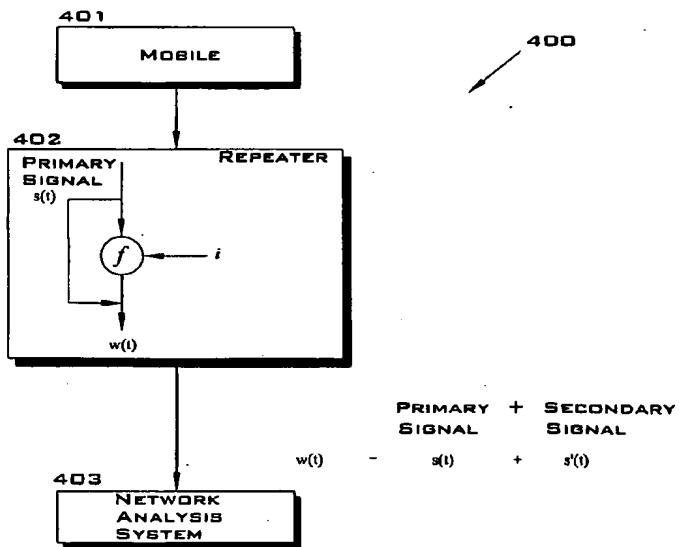
(71) Applicant (for all designated States except US): ANDREW CORPORATION [US/US]; 19700 Janelia Farm Boulevard, Ashburn, VA (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ALLES, Martin [US/US]; 2421 Williams Avenue, Vienna, VA 22180 (US).

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR IDENTIFYING THE PATH OR DEVICES ON THE PATH OF A COMMUNICATION SIGNAL



(57) Abstract: A system and method of applying a known modification in the form of a distortion to a signal to enable a determination if a signal received by a first node is received directly from a second node or indirectly through a repeater (402). The repeater receives a primary signal and creates a secondary signal as a function of the primary signal and a known distortion, wherein the known distortion identifies the repeater. The primary signal is transmitted and injected with the secondary signal as the first signal to the primary receiver.

WO 2005/114869 A1



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*